The book is written in the form of letters from a nurse to her patient. It is intended for the laity. The instructions are practical and the teaching is in accord with the modern school of obstetrics.

It is questionable what advantage is gained by presenting medical subjects in this way, but if women are to be supplied with information on these subjects it could not be better given.

The book is of handy size, and it is supplied with an index. The type is good.

The Modern Geometry of the Triangle. By W. Gallatly. Pp. 70. (London: F. Hodgson, n.d.) Price 2s. 6d.

THE principal novelties in this tract are the chapters on the orthopole (with some original propositions by the author) and on orthogonal projection (mostly after Prof. Neuberg). A pretty theorem in the latter is that all equilateral triangles in a given plane project upon another plane into triangles having the same Brocard angle. The other four chapters discuss various kinds of coordinates, the Lemoine and Brocard points, pedal and anti-pedal triangles, the medial triangle, and the Simpson line. No reference is made to the Tucker circles, or to Kiepert's hyperbola; even the Brocard circle is unmentioned, so the tract is deficient, even as a summary of the most important parts of the subject. A rather irritating feature is that the symbol ∞ is used for two entirely different purposes; this might easily have been avoided. Perhaps the figures will be found as useful as anything in the tract, for although they are not particularly good, they are drawn so that the special points are far enough apart, which is not very easy to contrive when a student is drawing figures for himself.   M.

Paul Appell: Biographie, Bibliographie analytique des Ecrits. By Ernest Lebon. Pp. viii + 71. (Paris: Gauthier-Villars, 1910.) Price 7 francs.

THIS volume is the latest addition to the excellent series of biographies published under the general title, "Savants du Jour," to which attention has been directed on several occasions in these columns. The brochure maintains the high character of the series.

A biography of Prof. Appell, in which an interesting account of his early experiences during the siege of Strasburg, where he was born in 1855, is followed by an exhaustive list of the academic distinctions, honorary titles, prizes, and decorations which have been conferred upon him during his strenuous life. His work in mathematical analysis was eulogised by M. Charles Hermite in 1889, on the occasion of Prof. Appell's receiving a gold medal at a conference presided over by King Oscar II.; and the appreciation is here printed. M. Gaston Darboux's account of the researches in geometry, for which Prof. Appell received the Bordin prize of the Paris Academy of Sciences, is also included in the volume. A complete list of the papers and addresses of the subject of the biography completes what is a valuable record.

A Flower Anthology. Selected and illustrated by Alfred Rawlings. Pp. iv + 163. (London: Philip Lee Warner, 1910.) Price 5s. net.

THE quotations in this collection have been selected from the works of many well-known poets, but more especially from Wordsworth, Shakespeare, Herrick, Chaucer, and Keats.

The poems have been classified roughly into those dealing with the seasons of the year, and the changes in the animal and vegetable world associated with them. We are glad to see Edmund Spenser's "The Pageant of the Year," which gives a fine description and picture of nature in the different seasons and months.

The illustrations form a pleasing addition to the volume, which should meet with the approval of all lovers of poetry. The book is, moreover, very tastefully bound.

Hazell's Annual for 1911. A Record of the Men and Movements of the Time. Edited by Hammond Hall. Pp. lix + 592. (London: Hazell, Watson and Viney, Ltd.) Price 3s. 6d. net.

THE twenty-sixth issue of this useful reference annual is so much up-to-date that it contains a biographical list of members of the new House of Commons. So varied are the contents of the volume that it will appeal to workers in most spheres of human activity. The man of science will find, among other useful contents, articles on scientific progress in 1910, aerial navigation in 1910, Imperial research, scientific institutions, higher education, forestry, and afforestation, agriculture, and daylight saving. It is remarkable how much information has been packed into a small space.

Plant Anatomy from the Standpoint of the Development and Functions of the Tissues and Handbook of Micro-technic. By Prof. W. C. Stevens. Second edition. Pp. xv + 379. (London: J. and A. Churchill, 1910.) Price 10s. 6d. net.

THE first edition of Prof. Stevens's work was reviewed in NATURE for July 9, 1908 (vol. lxxviii., p. 219). The present issue has been enlarged by the addition of a chapter on reproduction, and the volume has been revised generally.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

The Recent Earthquakes in Asia.

I AM informed by Mr. G. W. Walker, superintendent of Eskdalemuir Observatory, that the records of the seismograph according to the design of Prince Boris Galitzine, which was recently presented by Dr. Arthur Schuster to the observatory, give the positions of the epicentres of the recent earthquakes in Asia as follows :—

January 1, lat. $36\frac{1}{2}°$ N., long. 66° E.

January 3–4, lat. 42° N., long. 77° E.

The first place is in the Hindu Kush range of Afghanistan, north-west of Cabul. The second is in the north-east of Turkestan, near its junction with the Chinese and Russian Empires.   W. N. SHAW.

Meteorological Office, South Kensington,
    London, S.W., January 9.

As it is unusual for the Kew magnetographs to be affected by earthquakes, it seems worth mentioning that on the occasion of the Turkestan earthquake, near midnight (G.M.T.) of January 3, both the declination and horizontal force traces show unmistakable effects. The magnets oscillated in a way characteristic of mechanical shocks. According to our Milne seismograph, the preliminary seismic tremors reached Kew about 11.35 p.m., and the large waves about 11.47 p.m., when the limits of registration were exceeded for a minute or so. There was then a comparative lull until about 11.54, when the limits of registration were again exceeded, and these very large movements continued with short interludes for more than fifteen minutes.

The apparent times of commencement of the oscillatory magnetic movements are about 11.53 in the declination and 11.55 in the horizontal force curves, and for four or five minutes the oscillations were so continuous that no

trace is clearly shown. From 11.35 to 11.38 there was a very rapid easterly movement of about 4′ in the declination trace, of a non-oscillatory character. The close agreement in time of this movement with the arrival of the preliminary tremors is very likely a purely accidental coincidence; but the movement is of an unusual character, and it would be interesting to know what was being recorded at the time at other magnetic observatories. The movement may, of course, have been due to some purely local source, *e.g.* abnormal electric-tram currents.

<div align="right">C. Chree.</div>

Kew Observatory, Richmond, Surrey, January 7.

Singularities of Curves and Surfaces.

There is a distinction between *multiple* points and what, for want of a better word, I have called *singular* points. The curve $au_p + u_{p+1} = 0$ has at A a *multiple* point of order p, but not a *singular* point. The latter points are defined in § 169 of my " Geometry of Surfaces," reviewed in Nature of December 22, 1910 (p. 231), and the definition may be illustrated as follows. Let multiple points of orders p. q, r . . ., where p is not less than q, r . . ., move up to coincidence along a continuous curve; then the compound singularity thereby formed is a singular point of order p. The curve of lowest degree, which can possess a singular point of given order, depends on the way in which the singularity is formed. Thus if four nodes move up to coincidence along a conic, the resulting singular point is of the second order; but a quintic is the curve of lowest degree which can possess such a singularity. Also, if three nodes move up to coincidence along a straight line, the singular point is still of the second order, but no curve of lower degree than a sextic can possess such a point.

The reviewer's statement in the second paragraph is misleading, and calculated to convey a false impression, since the investigations referred to are applicable to surfaces of any degree. The fact is that a quartic surface is capable of possessing most of the simpler singularities. The principal exceptions are triple lines, which cannot be completely discussed without the aid of a surface of the seventh degree, and cuspidal twisted curves, which necessitate the employment of a quintic surface, since a quartic surface, which possesses a cuspidal twisted cubic curve, is a developable surface, and is therefore not sufficiently general for the purpose in question.

As science advances, the introduction of new words is essential. Thus lithotrity, ovariotomy, scleroderma, &c., have been introduced during the last century to designate operations and diseases of which our ancestors were ignorant, whilst algebra has been enriched by such words as catalecticant, evectant, protomorph, &c. The choice of suitable words requires care, but I adhere firmly to my opinion that Latin and Greek are the best languages to employ.　　　　　　　　　　　　A. B. Basset.

December 23, 1910.

It is unfortunately impossible to give a very brief rejoinder to Mr. Basset's letter; and it is perhaps as well to take the opportunity of giving a further statement of my position in reference to singularities on a plane curve. In the first place, the distinction drawn in Mr. Basset's letter between *multiple* points and *singular* points of order p does not seem to be in agreement with the practice followed in his book, where the two terms appear to be used indiscriminately: thus in §§ 171–4 and § 181 the term *multiple* point is invariably applied to singularities which, according to his letter, he would now call *singular* points. At any rate, the singularities considered in these articles cannot occur (in their general forms) on curves of degree $(p+1)$, and, as I understand Mr. Basset's letter, he intends the use of the term *multiple* points to be restricted to those singularities which do occur on curves of degree $(p+1)$. Naturally such a restriction would justify the assumption made in § 165, which was criticised in my review; but no modification of terminology will answer the question as to whether *all* types of singularity can be obtained by Mr. Basset's treatment of the subject.

The singularities which were in my mind when I raised this question were those considered by Zeuthen (*Math. Annalen*, Bd. x.) and Jordan (" Cours d'Analyse," t. I, chap. v.); a fairly simple example is given by the origin on the curve $x = t^6$, $y = t^{12} + t^{15} + t^{16}$.

Zeuthen's method enables us to determine the Plücker-equivalents of the singularity, and Jordan shows how to find quadratic transformations which reduce the singularity to a simpler character. But I do not see that Mr. Basset's limiting process (as briefly indicated in his letter) would enable us to handle any singularity of this type (called a *cycle* by Jordan), nor have I found any reference to the existence of such types in Mr. Basset's book.

<div align="right">T. J. I'A. B.</div>

Scottish Natural History.

I see that Nature of December 29, 1910, refers to two statements made before a natural history society by Mr. Symington Grieve, viz. :—

(1) That half a century ago white-tailed eagles were more abundant than golden eagles, or words to that effect.

(2) That Mr. Grieve is of the opinion that wild cats are on the increase in Scotland owing to the instructions issued by proprietors and factors for their protection.

With regard to the first, naturalists would like to have further data. It is certainly true white-tailed eagles *were* then vastly more abundant than now, and that they are now verging on extinction as an existing species. But that they were " far more numerous half a century ago than the golden eagle " requires more exact statistics. Forty years ago there were quite eighty eyries of golden eagles occupied over all Scotland, but I cannot find any *evidence to prove* that white-tailed eagles at any time anywhere in Scotland even approached that figure, and during at least forty years I have paid considerable attention to all statements made as to their distribution and their subsequent decrease. Locally in some few districts white-tailed eagles were more numerous than golden eagles, but not generally, and I believe all occupied eyries could at any time have been easily counted.

As regards the increase of wild cats, that is also quite undoubted, but the true reason is not the direct instructions given by proprietors or factors generally, though that may have some local value also, but to the protection afforded by the increased area of lands devoted to deer afforestation.　　　　　　　　　　　T. A. Harvie Brown.

Dunipace, Larbert, Stirlingshire, N.B.,
　　December 29, 1910.

The Origin of Man.

The following extract from a review in " Dodsley's Annual Register for 1767 " of Dr. Adam Ferguson's essay on the " History of Civil Society " may be of interest :—

" Many of the authors who have written on man, and those too, some of the most ingenious, have set out by considering him as an animal. . . . Nay, one in particular has thrown out doubts of his having been originally a monkey or baboon." (The reviewer goes on to speak of this theory as " too ridiculous for serious animadversion.")

Could any of your readers say who was the " one in particular "?　　　　　　　　　　　　Charles E. Benham.

Colchester, January 7.

COLLIERY WARNINGS.

WHEN an appalling colliery disaster, like that at Hulton Colliery, happens to coincide with a " colliery warning," public attention is naturally attracted to the fact, and the warning at once becomes invested with an appearance of importance that is out of all proportion to its true value. There appears to be an impression that these colliery warnings are issued by some central responsible authority, such as the Meteorological Office might be, and that they are based upon sound scientific principles, but as a matter of fact they are issued by the Press Association, and are